

Figs. 1-2. Head of *Rhabdops olivaceus* (Beddome).

1. Lateral view. 2. Dorsal view.

the hill district of Wynaad and currently from the Vellanimala Hill of Trichur district. Besides, the food habits of *R. olivaceus* are likely to be similar to that of *R. bicolor*, as the snake was found to be associated

with other vermiform animals mentioned above.

The collection data and morphometric measurements of the specimen examined are as follows:

Material examined: 1 ex. Locality: Vellanimala, Pattikkad Forest Range, Trichur district, Kerala, India. Date of Collection: 9-x-1995.

Collector's name: K.C. Gopi et al. Z.S.I, Calicut. Total length including tail: 542 mm. (Tail, 88 mm.) Ventral: 218. Anal: 2. Caudal: 64.

The specimen collected is deposited in the faunal holdings of the Western Ghats Field Research Station, Zoological Survey of India, Calicut. Drawings of the head pattern of *R. olivaceus* are provided for easy identification as the same is not given by Smith (1943) in his Fauna volume.

The present record of collection of *R. olivaceus* from Trichur district establishes its occurrence in the hill areas of Western Ghats south of Wynaad. Ecological observations suggest similarity in habits and habitat with that of *R. bicolor*.

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26. RANGE EXTENSION AND SOME ASPECTS OF MORPHOLOGY AND HABITAT OF AN ANURAN SPECIES *LIMNONECTES BREVIPALMATA* (PETERS, 1871) (RANIDAE)

The frog species Limnonectes brevipalmata (Peters, 1891) (=Rana brevipalmata), though it resembles Limnonectes limnocharis closely, is a distinct species (Pillai, 1980). The distribution of this uncommon frog was given as Kerala and Tamil Nadu by Inger and Dutta (1986). Sekar (1991)

extended its range of occurrence upto Karnataka based on a specimen in the BNHS collection collected from Someshwar, south Kanara in Karnataka.

During a study on the amphibian fauna of the Sanjay Gandhi National Park (SGNP), Borivali,

Bombay in 1993, I collected one calling male of Limnonectes brevipalmata among the vegetation during the monsoon at an altitude of 75 m. Thereafter, seven more specimens were collected from a nursery situated at the eastern side of the park. Another survey at Mahabaleshwar (Satara district, Maharashtra state), at a height of 1260 m, also provided eight specimens of L. brevipalmata. All the specimens have been deposited with the BNHS amphibian collection. The morphological characters are as follows:

Materials from Borivali: 8 ex. (BNHS Reg. No: 2940-2947). The snout-vent length of the specimens ranged from 36.7-46.2 mm; Tibia length 20.0-26.6 mm; Head length 12.05-17.0 mm. All were blackish brown above and dirty white below. Warts and broken, elliptical glands were black in colour. A pair of prominent glands in the form of inverted 'V' present on the back at the centre of the body just behind the eyes. All except one lacked vertebral streak. The inner metatarsal tubercle was very weak, and not shovel shaped.

Material from Mahableshwar: 8 ex. (BNHS Reg. No: 2955-2962). The snout-vent length of the specimens ranged from 34.8-60.75 mm; Tibia 18.6-30.0 mm; Head length 13.2-19.0 mm; the largest specimen was a female. Specimens were greyish brown and olive brown. As in the frogs from Borivali, the back had small, elliptical glands. A pair of prominent glands in the shape of inverted 'V' were also present on the back. The glands were bordered with black. All the specimens except one had a narrow to broad vertebral streak. The inner metatarsal tubercle was elliptical, strong, and shovel shaped.

The other morphological characters of the specimens of both the localities match the description by Boulenger (1920), Daniel (1975) and Piliai (1980).

In Borivali the individuals of this species were

collected from microhabitats like wet ground among monsoon plants on the damp floor of the nursery, whereas in Mahabaleshwar the frogs were collected from the edge of a pool, open areas of rocky ground with short grass and on wet leaf litter at the edge of the forest. All the individuals in both the places were collected at night between 1900 to 2200 hrs in the monsoon.

The ecology of this frog is poorly known. Pillai (1980) has reported little about the microhabitat preference of this frog. According to him this species prefers to be on the sloping banks of streams with some undergrowth. He opined that the brief webbing indicated lesser dependence on water and the compressed metatarsal tubercles were for excavation of soil for making 'nests'. Though the individuals from Mahabaleshwar with strong, shovel shaped inner metatarsal tubercles support his view, the specimens from Borivali, with weak and thin inner metatarsal tubercles, do not lend support to his view of use for making nest in the soil. Moreover, the present collections were made far from water.

As the occurrence of this species in Maharashtra has not been reported so far, the record of this species from Borivali (Bombay) and Mahabaleshwar is the first record from Maharashtra and this extends the range of occurrence of this species northwards along the Western ghats upto 19° 21' N.

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